

CLAIM

1. A cap structure for a balloon comprising:
a metal balloon body to be inflated with gas into substantially spherical
5 form;
a tube extending from one portion of the said balloon body,
communicating with the inside of said balloon body and closed at the free end;
a gas inlet formed in said tube;
a check valve disposed in said tube intermediate said gas inlet and said
10 balloon body;
a gas injecting cap detachably mounted on said gas inlet port; and
a cord fixed at one end to said cap and at the other end to said tube.
2. The cap structure for said balloon according to claim 1,
15 wherein said cap includes a substantially cylindrical cap body, a gas
injection port made in said cap body centrally thereof, and a cord winding
portion formed about the periphery of said cap body; and
wherein when said cap is removed from said gas inlet port, said gas
injection port of said cap serves as finger grip means for holding said balloon
20 through said cord unwound from said cord winding portion.
3. The cap structure for said balloon according to claim 2,
wherein said cap body of said cap has a planar end face on one side
facing said tube and a planar end face on the other side opposite from said tube.
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4. The cap structure for said balloon according to claim 3,
further comprising a seal sandwiched between said cap and said tube,

wherein a first adhesive layer is formed on one side of said seal for detachably attaching said cap to said tube; and a second adhesive layer is formed on the other side of said seal for fixing the other end of said cord to said tube.

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5. The cap structure for said balloon according to claim 4,
wherein said seal includes an annular sealing member of about the same shape as said one-side end face of said cap body of said cap and having first and second adhesive layers, and a tab extending from said sealing member
10 and having formed thereon only said second adhesive layer.

6. The cap structure for said balloon according to claim 5,
wherein the other end of said cord is fixed to said tube by said second adhesive layer formed on said sealing member of said seal and that the portion
15 of said cord in vicinity of said other end thereof is fixed to said tube by said second adhesive layer formed on said tab.

7. The cap structure for said balloon according to claim 5,
wherein said cap has a groove indicating the position where to stick said
20 sealing member of said seal to said cap body by said first adhesive layer.

8. The cap structure for said balloon according to claim 5,
wherein said cap has a notch formed in said cap body and a cord hole for tying thereto one end of said cord in said cord winding portion at a position
25 accessible from said notch.

9. The cap structure for said balloon according to claim 1,

wherein said cap has a small-diameter portion for holding the tip end portion of a gas injector of a gas injection device in said gas injection port.

10. A balloon provided with said cap structure according to claim 1.

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11. A balloon storage box comprising balloons of claim 10 arranged in folded form with their caps stacked.

12. A balloon vending machine comprising:

10 balloon arrangement means for arranging multiple caps of said balloons recited in claim 10;

balloon selecting means for selecting at least one of said plurality of balloons arranged by said balloon arrangement means;

15 balloon transfer means for holding and transferring the cap of said balloon selected by said balloon selecting means from said balloon arrangement means to a predetermined position;

gas injection means for injecting gas through said cap into said balloon transferred by said balloon transfer means to said predetermined position;

20 balloon receiving means for receiving said cap of said balloon inflated with gas by said gas injection means into substantially spherical form;

balloon dispensing means for dispensing said balloon held by said balloon receiving means; and

25 control means for controlling the operations of said balloon transfer means, said gas injection means, said balloon receiving means and said balloon dispensing means on the basis of the selection by said balloon selecting means.

13. The balloon vending machine according to claim 12,

wherein said balloon arrangement means arranges said caps with said balloons stacked.

14. The balloon vending machine according to claim 12,

5 wherein said balloon arrangement means is provided with a storage section in which said balloons held in folded form are stored with their caps stacked.

15. The balloon vending machine according to claim 12,

10 wherein said balloon selecting means is provided with a display panel for indicating display contents of said plurality of balloons arranged by said balloon arrangement means, and selecting operation parts corresponding to the display contents indicated on said display panel.

15 16. The balloon vending machine according to claim 12,

wherein said balloon transfer means is provided with a cap holder which fits in the cap of the balloon, and

20 wherein said gas injection means includes a gas injector formed integrally with said cap holder, a gas reservoir for storing gas, and a gas supply passage for supplying gas from said gas reservoir to said gas injector.

17. The balloon vending machine according to claim 16,

wherein said balloon receiving means is provided with a cap catching member for catching the balloon cap on the outer side thereof.

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18. The balloon vending machine according to claim 17,

wherein said balloon dispensing means includes a chamber for

accommodating said substantially spherical balloon held by said balloon receiving means, and a door member for opening said chamber in association with the balloon cap catching operation of said balloon receiving means.